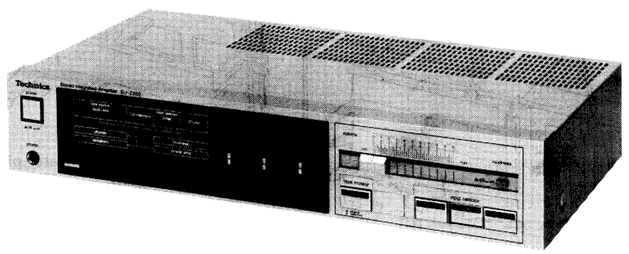
ORDER NO. HAD84062820C8

Service Manual

Stereo Integrated Amplifier

Amplifier

SU-Z200



Color

(S) · · · · Silver Type
(K) · · · · Black Type

Color	Area
(K) (S)	[E] · · · · · Switzerland and Scandinavia
(K) (S)	[EGA] · · · F.R. Germany
(K) (S)	[EK] · · · · United Kingdom
(K) (S)	[EF] · · · · France
(K) (S)	[EH] · · · · Holland
(K) (S)	[EB] · · · · Belgium
(K) (S)	[Ei] · · · · · Italy
(K) (S)	[XL] · · · · Australia
(K) (S)	[XA] · · · · Asia, Latin America, Africa, Middle Near East and Oceania

SPECIFICATIONS
(DIN 45 500)

■ AMPLIFIER SECTION

1 kHz continuous power output	
both channels driven	2 × 35W (8Ω)
40 Hz~20 kHz continuous power output	
both channels driven	2 × 30W (8Ω)
Total harmonic distortion	
rated power at 40 Hz~20 kHz	0.05% (8Ω)
half power at 1 kHz	0.01% (8Ω)
half power at 40 Hz~20 kHz	0.03% (8Ω)
−26 dB power at 1 kHz	0.02% (8Ω)
50 mW power at 1 kHz	0.02% (8Ω)
Intermodulation distortion	
rated power at 250 Hz: 8 kHz=4:1, 8Ω	0.05%
rated power at 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0.05%
Power bandwidth	
both channels driven, −3 dB	10 Hz~25 kHz (8Ω, 0.05%)
Residual hum and noise	0.8 mV
Damping factor	40 (8Ω)
Input sensitivity and impedance	
PHONO	2.5 mV/47kΩ
TUNER, CD/VIDEO/AUX, TAPE/EXT	150 mV/22kΩ
PHONO maximum input voltage (1 kHz, RMS)	150 mV
S/N	
rated power (8Ω)	
PHONO	72 dB (IHF, A: 72 dB)
TUNER, CD/VIDEO/AUX, TAPE/EXT	86 dB (IHF, A: 95 dB)
−26 dB power (8Ω)	
PHONO	62 dB
TUNER, CD/VIDEO/AUX, TAPE/EXT	63 dB
50 mW power (8Ω)	
PHONO	61 dB
TUNER, CD/VIDEO/AUX, TAPE/EXT	61 dB
Frequency response	
PHONO	RIAA standard curve ±0.8 dB (30 Hz~15 kHz)
TUNER, CD/VIDEO/AUX, TAPE/EXT	10 Hz~70 kHz (−3 dB)
Tone controls	
BASS	50 Hz, +10 dB~ − 10 dB
TREBLE	20 kHz, +10 dB~ −10 dB
Loudness control (volume at −30 dB)	50 Hz, +9 dB
Output voltage and impedance	
REC OUT	150 mV
Channel balance, CD/VIDEO/AUX 250 Hz~6,300 Hz	±1 dB
Channel separation, CD/VIDEO/AUX 1 kHz	55 dB
Headphones output level and impedance	390 mV/330Ω
Load impedance	4Ω~16Ω

■ GENERAL

Power consumption	165W
Power supply	
For Australia and United Kingdom	AC 50 Hz/60 Hz, 240V
For continental Europe	AC 50 Hz/60 Hz, 220V
For others	AC 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensions (W×H×D)	430 × 86 × 240 mm (16-15/16" × 3-3/8" × 9-7/16")
Weight	4.4 kg (9.7 lb.)

Note:
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

Specifications are subject to change without notice for further improvement.

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

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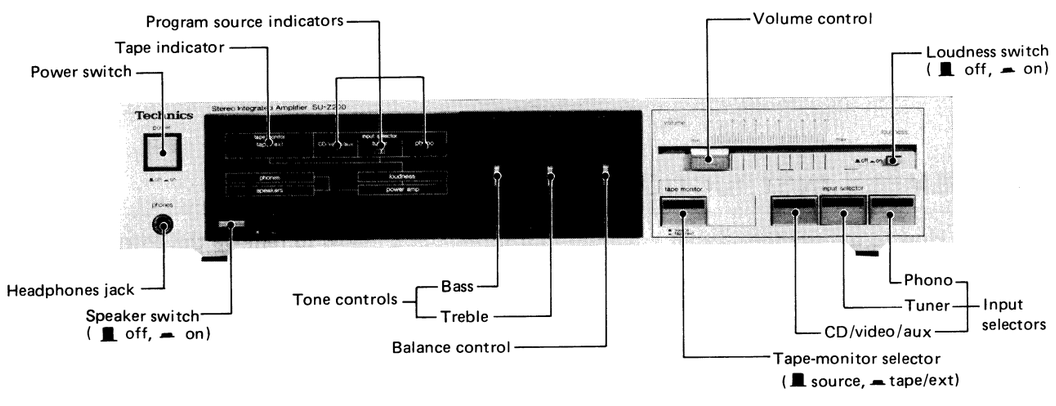
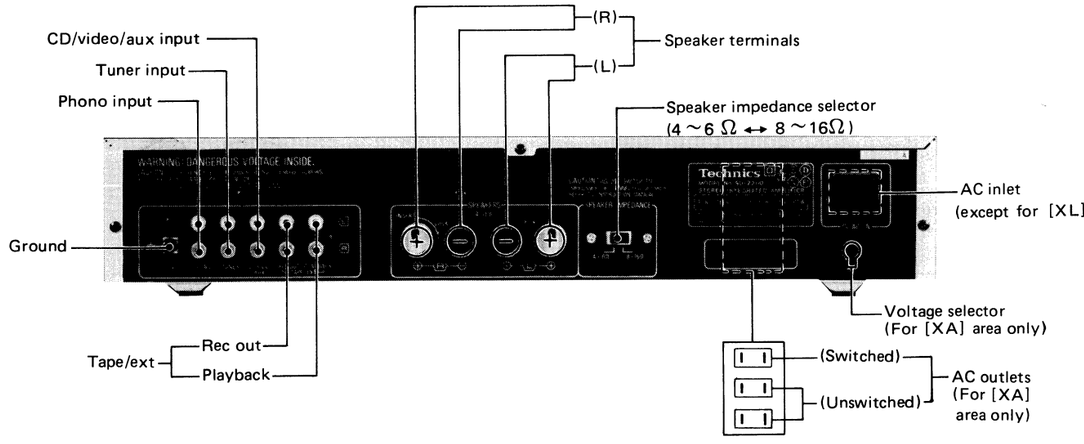
■ LOCATION OF CONTROLS





- The power supply for this unit varies depending upon the areas. Also, the parts used for power supply are different. So, refer to the circuit diagram and replacement parts list.

* [XA] area is provided with voltage selector and AC outlets.
* 240V (50/60Hz) for Australia and United Kingdom.
* 220V (50/60Hz) for Continental Europe.
* 110V/120V/220V/240V (50/60Hz) for other [XA] area.
* Phono input capacitance is about 150pF.

■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedure outlined below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again.

Note:
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

SU-Z200

■ BEFORE REPAIR AND ADJUSTMENT

1. Turn off the power, Discharge both power supply capacitors (C904, C905, 4700μF) through a 10 ohm, 5W resistor to ground. Do not short between C904 and C905. It may damage the capacitors.
2. After completion of repair, slowly apply the primary voltage by using a variac to avoid over current. Current consumption at 60Hz/50Hz in no signal mode should by shown below with respect to supply voltage 110V/120V/ 220V/ 240V.

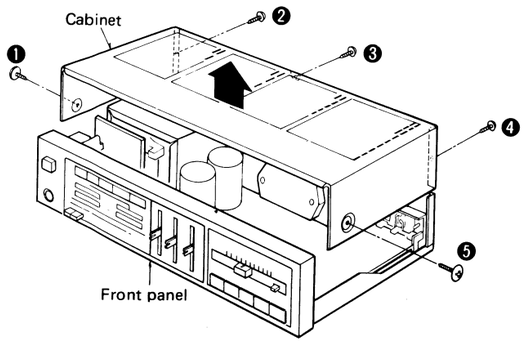
Power supply voltage		AC110V	AC120V	AC220V	AC240V
Consumed current	50Hz	145 ~ 290mA	130 ~ 265mA	70 ~150mA	70 ~ 130mA
	60Hz	145 ~ 290mA	130 ~ 265mA	70 ~150mA	70 ~ 130mA

■ DISASSEMBLY INSTRUCTIONS

Ref. No. 1 — **How to remove the cabinet**

Procedure 1

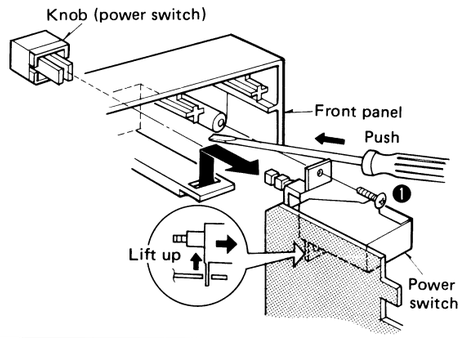
- Remove the 5 screws.



Ref. No. 2 — **How to remove the power switch**

Procedure 1 → 2

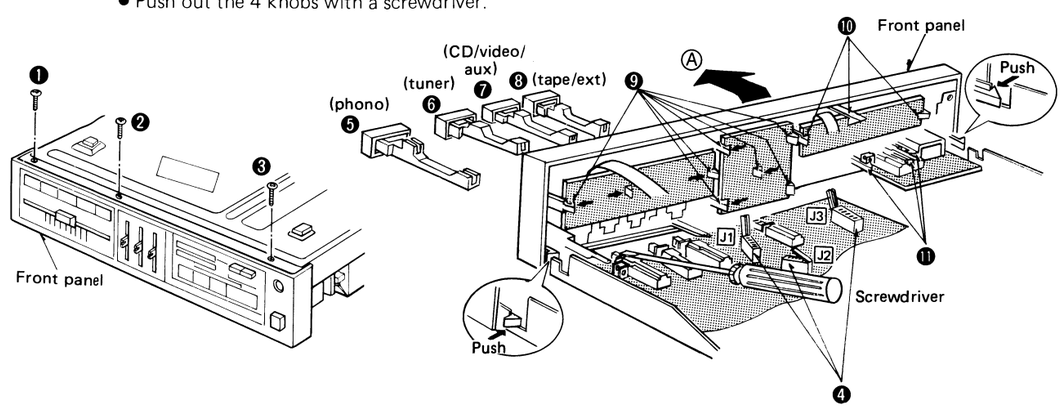
- Remove the 1 screw.
- Remove the power switcn knob with a screwdriver.



Ref. No. 3 — **How to remove the front panel**

Procedure 1 → 3

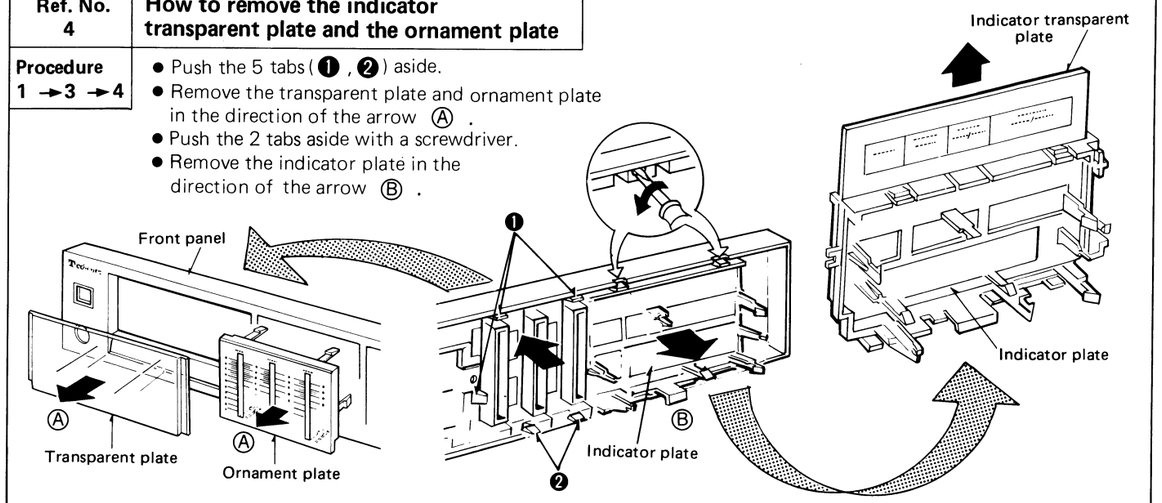
- Remove the 3 screws.
- Pull out the 3 connectors (J1, J2, J3)
- Push out the 4 knobs with a screwdriver.
- Push the 16 tabs aside. (❾ ~ ⓫)
- Remove the front panel in the direction of the arrow Ⓐ .



Ref. No. 4 — **How to remove the indicator transparent plate and the ornament plate**

Procedure 1 → 3 → 4

- Push the 5 tabs (❶ , ❷) aside.
- Remove the transparent plate and ornament plate in the direction of the arrow Ⓐ .
- Push the 2 tabs aside with a screwdriver.
- Remove the indicator plate in the direction of the arrow Ⓑ .

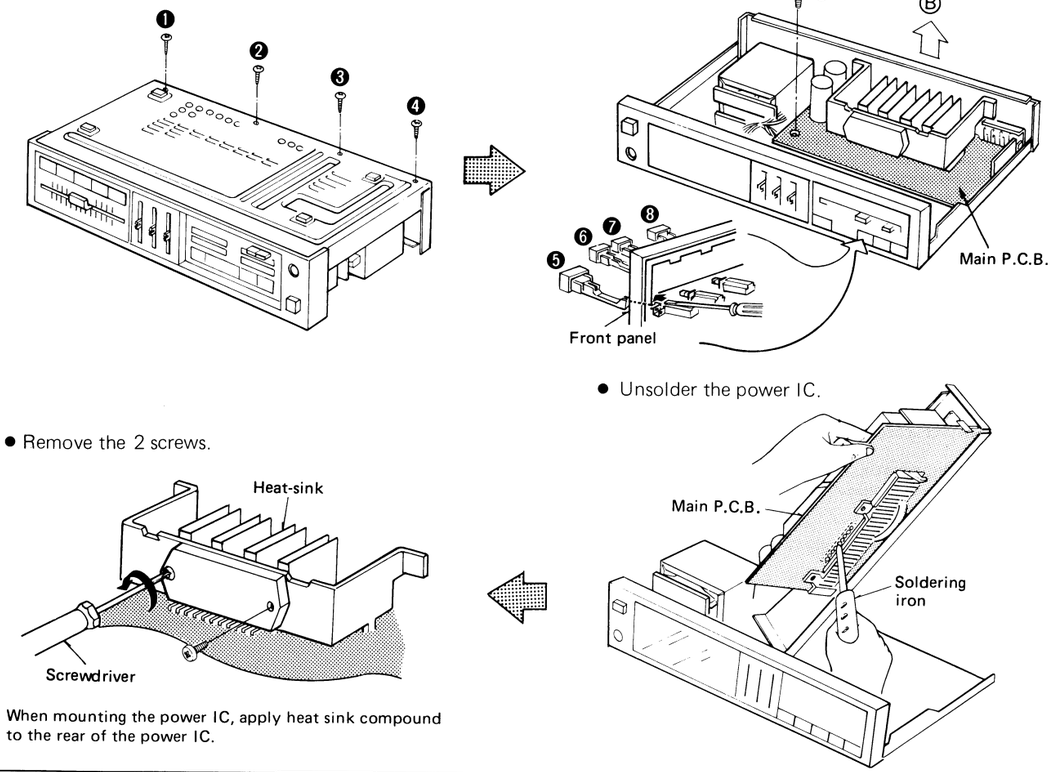


Ref. No. 5 — **How to remove the power IC**

Procedure 1 → 5

- Remove the 4 screws. (❶ , ~❹).
- Remove the 2 screws.
- Unsolder the power IC.

1. Push out the 4 knobs with a screwdriver. (❺ ~ ❽)
2. Remove the 1 screw. (❾)
3. Shift the main P.C.B. toward the front panel in the direction of arrow Ⓑ to lift it upward and out.



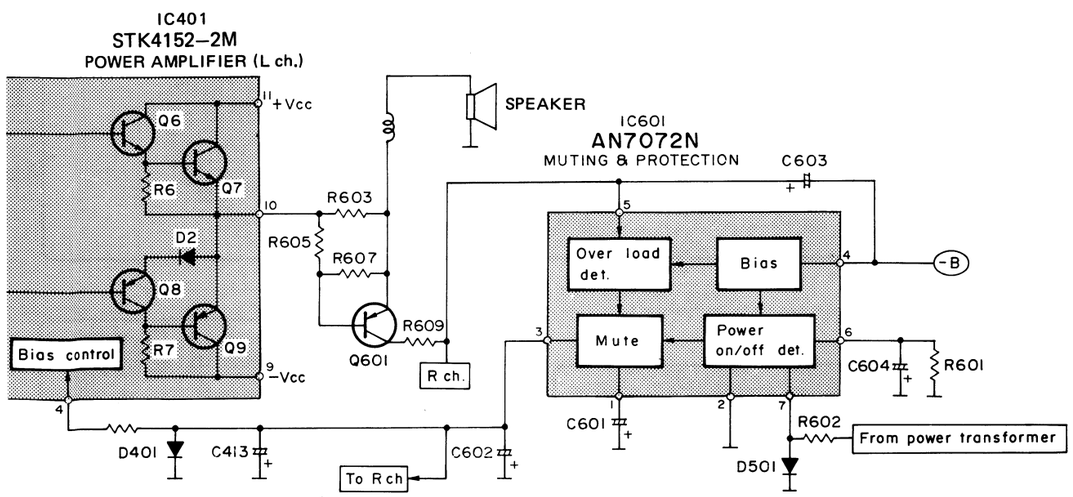
When mounting the power IC, apply heat sink compound to the rear of the power IC.

■ TERMINAL GUIDE OF TRANSISTORS, DIODES AND IC'S

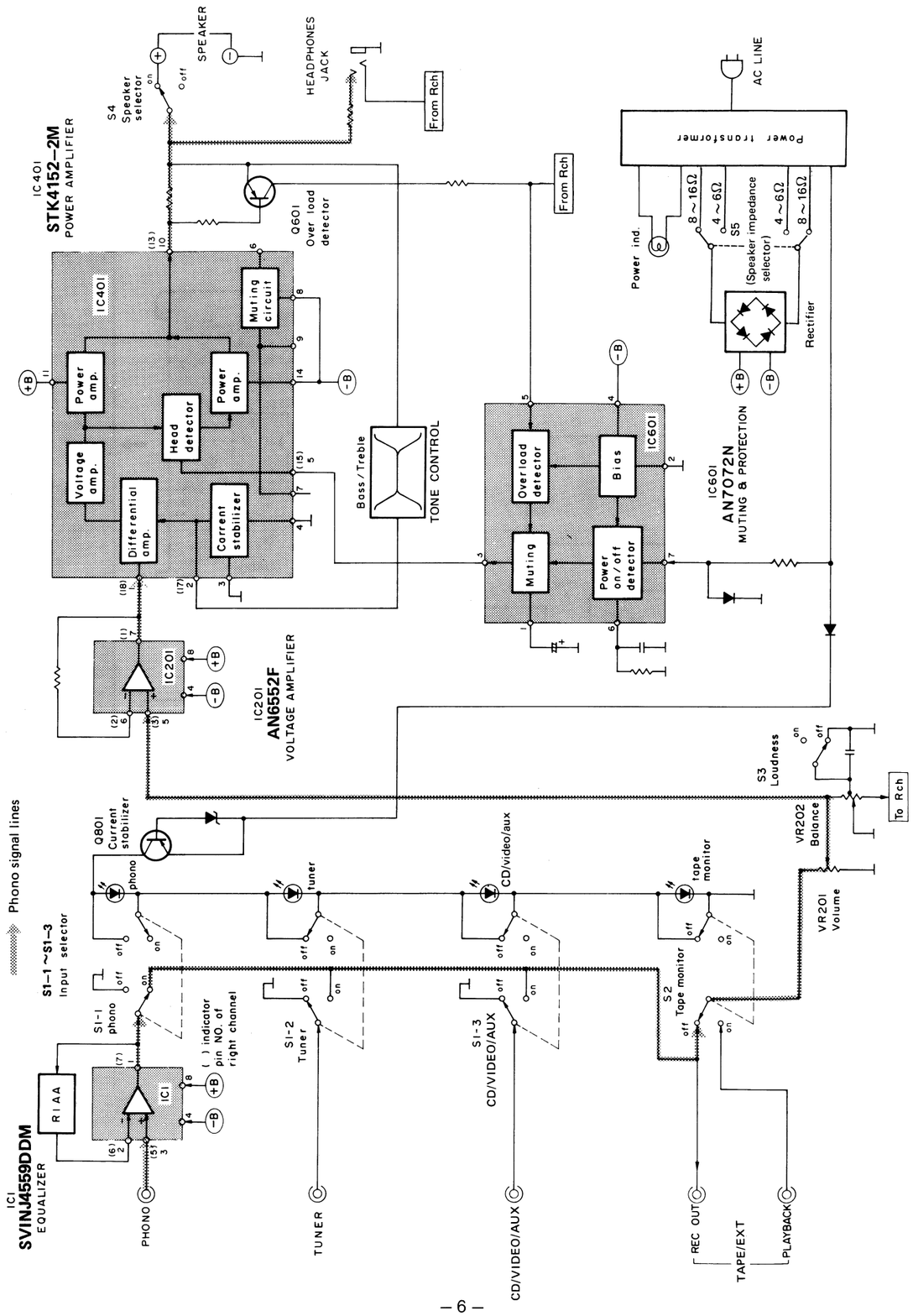
MA165	SVDS2V20 SVDSR1K2	SVINJM2043SE SVINJ4559DDM AN6552	STK4152-2M	AN7072N
2SA684, 2SA992	LN240CP, LN440CPMS	MA4150, MA4091 MA2150		

■ OPERATIONAL DESCRIPTION OF IC601 FOR MUTING

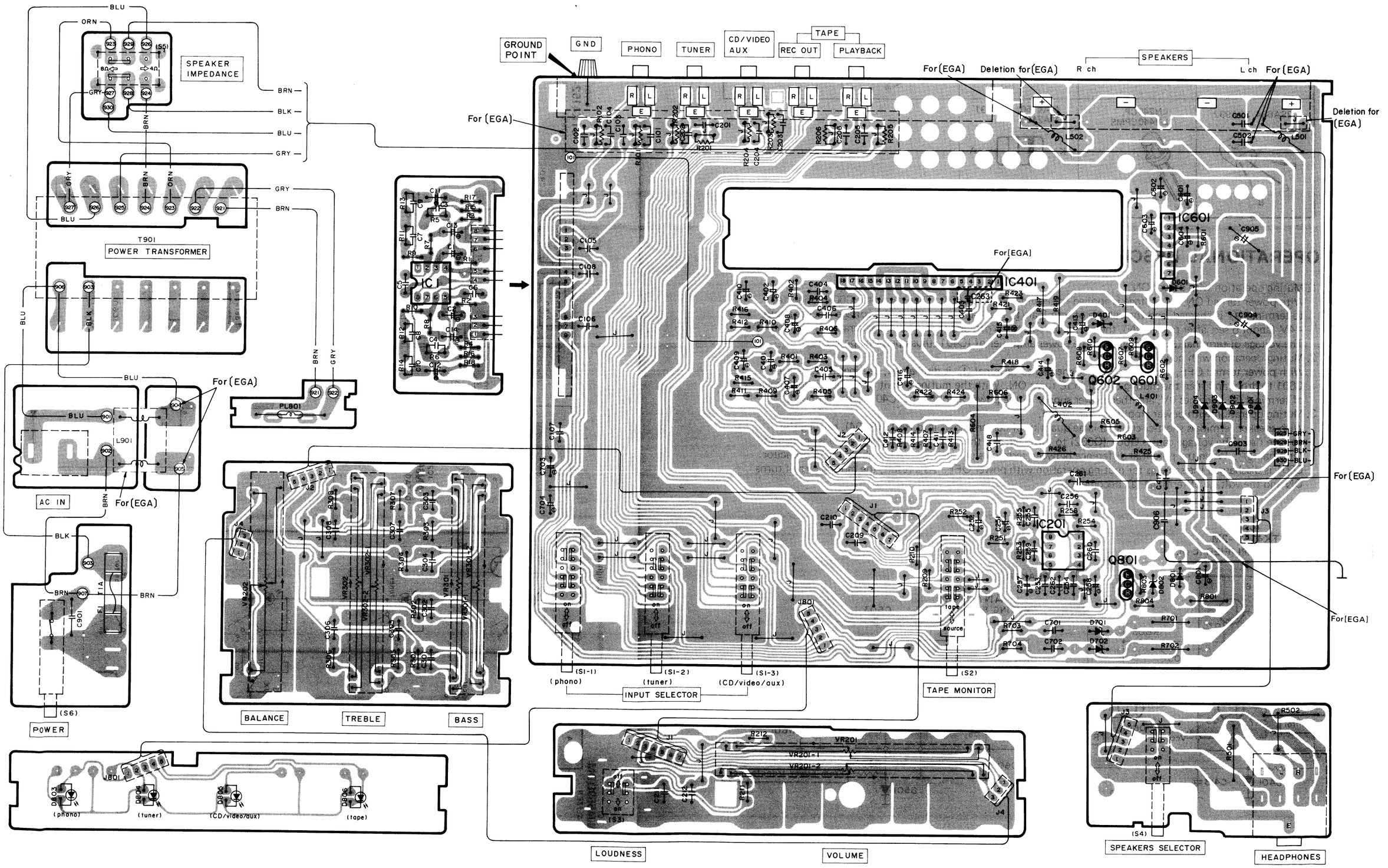
1. Muting operation with power ON.
   With power turned ON, AC voltage is applied to terminal ⑦ of IC601. Then capacitor C601 connected to terminal ① is charged, and the voltage of terminal ① gradually rises. When the voltage reaches about −4V (about 5 sec. after power ON), the muting circuit turns off, and then −33V is generated at terminal ③ . The voltage of terminal ③ is supplied to the power amplifier of IC401, thus operating power IC.
2. Muting operation with power OFF.
   With power turned OFF, capacitor C601 connected to terminal ① is discharged, causing the voltage of C601 to drop, and then the muting circuit in IC turns ON. With the muting circuit turned ON, the voltage of terminal ③ becomes 0V, and then power supply to the power amplifier of IC401 is discontinued.
3. Muting operation with power amplifier over-loaded.
   With speaker terminals short-circuted, a large quantity of current flows into R603 (R604), causing the voltage rise. The voltage causes Q601 (Q602) to turn ON, and then overload detecting signal is applied to terminal ⑤ . When the potential difference between terminals ④ and ⑤ reaches about 0.7V, capacitor C601 is discharged the same as for muting operation with power OFF. As a result, the muting circuit turns ON and the voltage of terminal ③ becomes 0V.

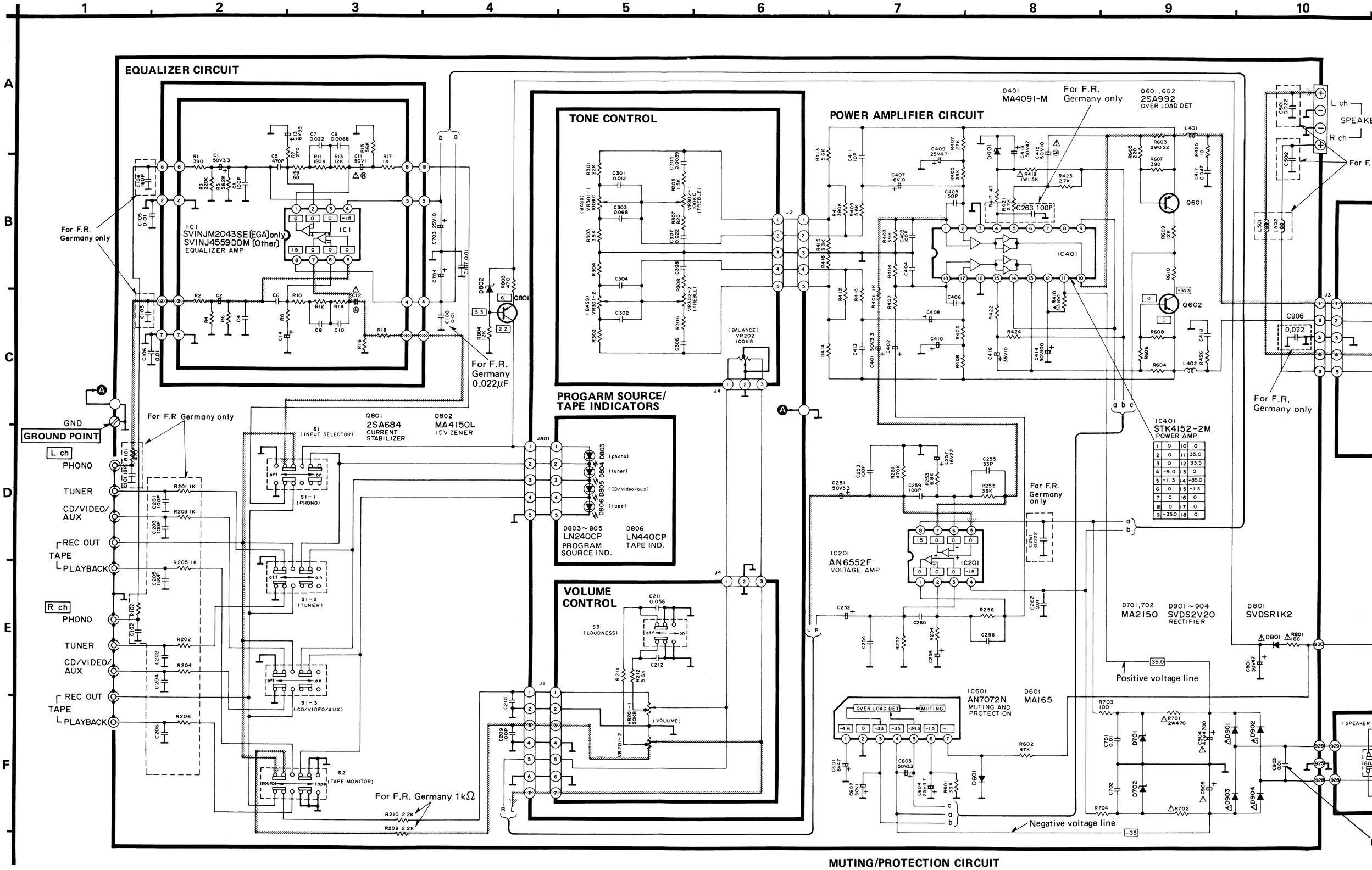


■ BLOCK DIAGRAM

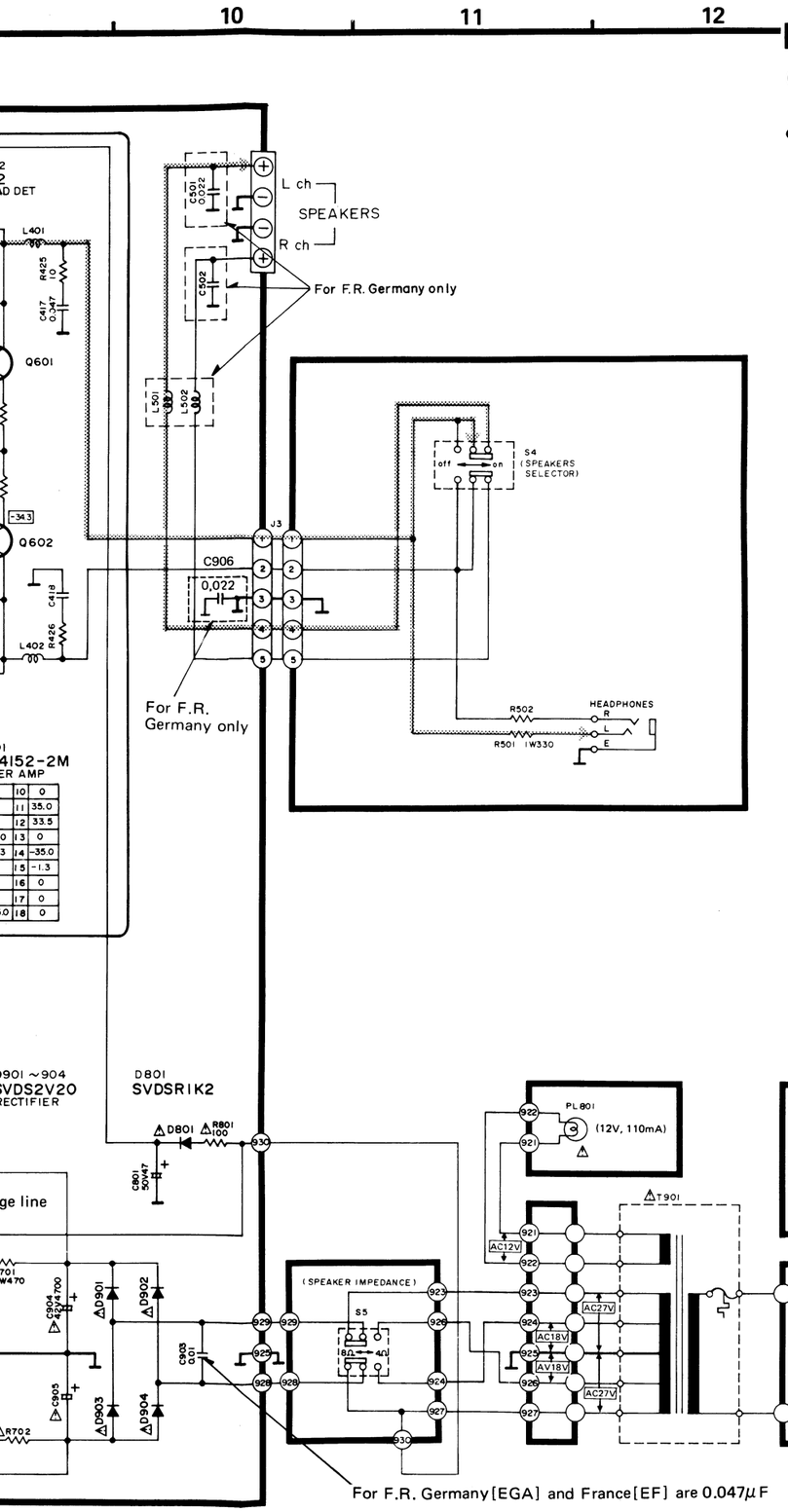


■ PRINTED CIRCUIT BOARDS





MUTING/PROTECTION CIRCUIT



■ SCHEMATIC DIAGRAM

(This schematic diagram may be modified at any time with the development of new technology.)

● The part No. of transistors, IC and diodes mentioned in the schematic diagram stand for production part No. Regarding the part No. with ✪ mark, the production part No. are different from the replacement part No. Therefore, when placing an order for replacement parts, please use the part No. in the replacement parts list.

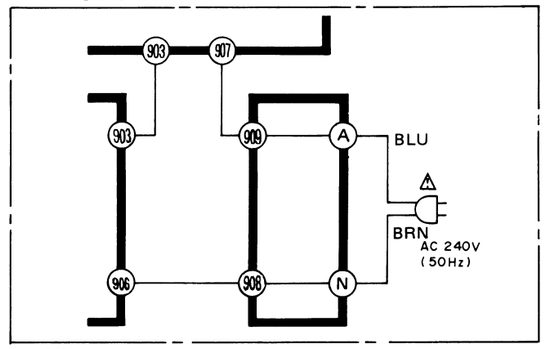
Notes:

1. **S1-1 ~S1-3:** Input selector switch in **"phono"** position.
   phono ↔ tuner ↔ CD/video/aux
2. **S2:** Tape monitor switch in **"source"** position.
   source ↔ tape/ext
3. **S3:** Loudness switch in **"off"** position.
4. **S4:** Speaker switch in **"on"** position.
5. **S8:** Speaker impedance selector switch to **"8 ~ 16 Ω"** position
   4 ~ 6Ω ↔ 8 ~ 16Ω
6. **S6:** Power switch in **"on"** position.
7. **S8 [XA] only:** Voltage selector switch in **"240V "** position.
   110V ↔ 120V ↔ 240V ↔ 220V
8. Important safety notice:
   Components identified by ⚠ mark have special,characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
9. ▭ Indicated voltage values are the standard values for the DC electronic circuit tester (high-impedance) with the ground point taken as standard. Therefore, there may exist some errors in the voltage values, depending on the invertal impedance of the DC circuit tester.
10. ▒▒▒ Phono signal lines.
11. ——— Positive and negative voltage lines.

■ CIRCUITS TO BE CHANGED AND THE AREAS

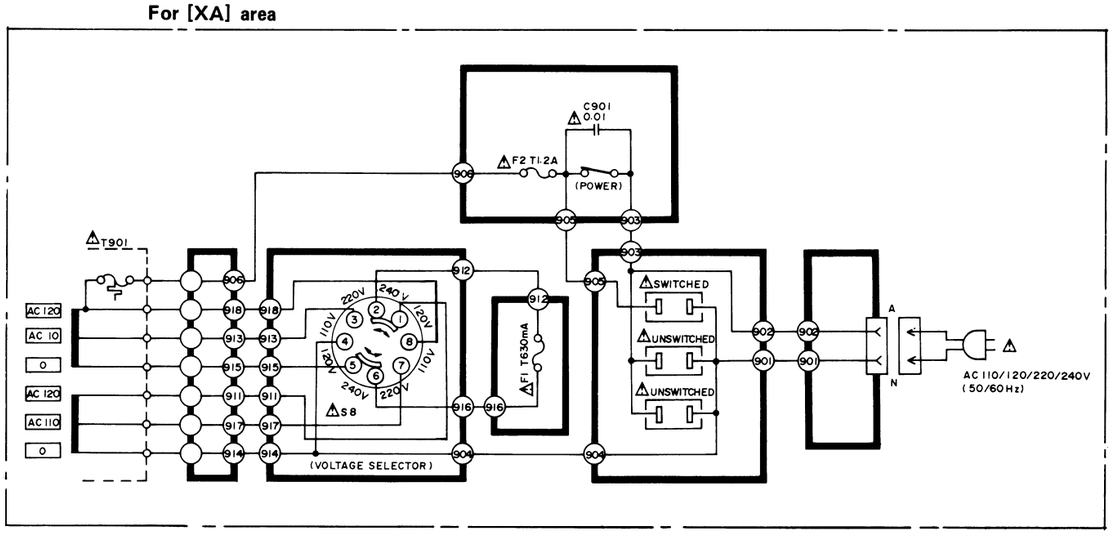
● Power source circuit

For [XL] area



● [XL] is available in Australia.

For [XA] area



● [XA] is available in Asia, Latin America, Africa, Middle Near East and Oceania.

■ RESISTORS & CAPACITORS

Notes:
1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components use only manufacturer's specified parts.
3. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
4. The "Ⓢ" mark is service standard parts and may differ from production parts.
5. The unit of resistance is OHM (Ω). K = 1000Ω, M = 1000kΩ
6. The unit of capacitance is MICROFARAD (μF). P = 10^{-6}μF

Numbering System of Resistor

Example

ERD	25	F	J	101
Type	Wattage	Shape	Tolerance	Value

Resistor Type	Wattage	Tolerance
ERD : Carbon	10 : 1/8W	J : ±5%
ERG : Metal oxide	25 : 1/4W	K : ±10%
ERX : Metal film	S2 : 1/4W	
ERD10TL : Chip type carbon	2A : 2W	
ERO : Metal film	1A : 1W	

Numbering System of Capacitor

Example

ECKD	1H	103	Z	F
Type	Voltage	Value	Tolerance	Peculiarity

ECEA	50	M	R47	R
Type	Voltage	Peculiarity use	Value	Special use

Capacitor Type	Voltage		Tolerance
	ECEA Type	Other	
ECEA : Electrolytic	0J : 6.3V	ECQP1 : 100V DC	J : ±5%
ECCD : Ceramic	1C : 16V	1H : 50V DC	K : ±10%
ECKD : Ceramic	1A : 10V	KC : 400V AC	Z : +80%, −20%
ECQM : Polyester	1E : 25V	2A : 250V	P : +100%, −0%
ECEQ : Polyester	1H : 50V	2H : 500V	
	1V : 35V		
	50 : 50V		
	25 : 25V		
	42 : 42V		

●RESISTORS

Ref. No.	Part No.	Value
R1,2	ERD10TLJ391U	390
R3,4	ERD10TLJ224U	220K
R5,6	ERO10MKG5622	56.2K
R7,8	ERD10TLJ271U	270
R9,10	ERD10TLJ680U	68
R11,12	ERD10TLJ184U	180K
R13,14	ERD10TLJ123U	12K
R15,16	ERD10TLJ563U	56K
R17,18	ERD10TLJ102U	1K
R101,102 (EGA)only	ERDS2TJ471	470
R201,202 (EGA)only	ERDS2TJ102	1K
R203,204 (EGA)only	ERDS2TJ102	1K
R205,206 (EGA)only	ERDS2TJ102	1K
R209,210 (EGA)only	ERDS2TJ102	1K
R209,210 Except (EGA)	ERDS2TJ222	2.2K
R211,212	ERDS2TJ562	5.6K
R251,252	ERDS2TJ474	470K
R253,254	ERDS2TJ682	6.8K
R255,256	ERDS2TJ393	39K
R301,302	ERDS2TJ223	22K
R303,304	ERDS2TJ392	3.9K
R305,306	ERDS2TJ152	1.5K
R307,308	ERDS2TJ821	820
R401,402	ERDS2TJ102	1K
R403,404	ERDS2TJ393	39K
R405,406	ERDS2TJ393	39K
R407,408	ERDS2TJ273	27K
R409,410	ERDS2TJ562	5.6K
R411,412	ERDS2TJ394	390K
R413,414	ERDS2TJ562	5.6K
R415,416	ERDS2TJ332	3.3K
R417 Ⓢ	ERD25FJ470	47
R418 ⚠	ERD25FJ101	100
R419 ⚠ Ⓢ	ERG1ANJ152	1.5K
R421,422	ERDS2TJ272	2.7K
R423,424	ERDS2TJ272	2.7K
R425,426	ERD25FJ100	10
R501,502 Ⓢ	ERG1ANJ331	330
R601	ERDS2TJ393	39K
R602	ERDS2TJ473	47K
R603,604 Ⓢ	ERX2ANJR22	0.22
R605,606	ERDS2TJ221	220
R607,608	ERDS2TJ391	390
R609,610	ERDS2TJ123	12K
R701,702 ⚠ Ⓢ	ERG2ANJ471	470
R703,704	ERDS2TJ101	100
R801 ⚠	ERD25FJ101	100
R803	ERDS2TJ471	470
R804	ERDS2TJ123	12K

●CAPACITORS

Ref. No.	Part No.	Value
C1,2 Ⓢ	ECEA50Z3R3	3.3
C3,4 Ⓢ	ECCD1H101K	100P
C5,6 Ⓢ	ECKD1H471KB	470P
C7,8	ECQM1H223JZ	0.022
C9,10	ECQM1H682JZ	0.0068
C11,12 ⚠	ECEA1HN010S	1
C13,14	ECEA0JU330	33
C101,102 (EGA)only Ⓢ	ECCD1H180KC	18P
C103,104 (EGA)only Ⓢ	ECCD1H181K	180P
C105,106 Ⓢ	ECKD1H103ZF	0.01
C107 Ⓢ	ECKD1H103ZF	0.01
C108 Ⓢ Except (EGA)	ECKD1H103ZF	0.01
C108 (EGA)only Ⓢ	ECKD1H223ZF	0.022
C201,202 (EGA)only Ⓢ	ECCD1H101K	100P
C203,204 (EGA)only Ⓢ	ECCD1H101K	100P
C205,206 (EGA)only Ⓢ	ECCD1H101K	100P
C209,210 Ⓢ	ECCD1H101K	100P
C211,212	ECQM1H563JZ	0.056
C251,252	ECEA1HU3R3	3.3
C253,254 Ⓢ	ECCD1H101K	100P
C255,256 Ⓢ	ECCD1H330K	33P
C257,258	ECEA1CU220	22
C259,260 Ⓢ	ECCD1H101K	100P
C261 (EGA)only Ⓢ	ECKD1H223ZF	0.022
C262 Ⓢ	ECKD1H103ZF	0.01
C263 (EGA)only	ECCD1H101K	100P
C301,302	ECQM1H123JZ	0.012
C303,304	ECQM1H683JZ	0.068
C305,306	ECQM1H392JZ	0.0039
C307,308	ECQM1H223JZ	0.022
C401,402	ECEA1HU3R3	3.3
C403,404 Ⓢ	ECCD1H101K	100P
C405,406 Ⓢ	ECCD1H151KC	150P
C407,408	ECEA1CU100	10
C409,410	ECEA1EU4R7	4.7
C411,412 Ⓢ	ECCD1H100KC	10P
C413	ECEA1HU470	47
C414	ECEA1HU101	100
C415 ⚠	ECEA1HN100S	10
C416	ECEA1VU100	10
C417,418 Ⓢ	ECKD1H473ZF	0.047
C501,502 (EGA)only Ⓢ	ECKD1H223ZF	0.022
C601	ECEA0JU470	47
C602	ECEA1HU010	1
C603	ECEA1HU3R3	3.3
C604	ECEA1EU4R7	4.7
C701,702 Ⓢ	ECKD1H103ZF	0.01
C703,704	ECEA1EU100	10
C801	ECEA1HU470	47
C901 ⚠	ECKDKC103PF2	0.01
C903 [EF,EGA]only	ECQE2A473MW	0.047
C903 [Other]	ECKD2H103PE	0.01
C904,905 ⚠	ECETS42V472U	4700
C906 [EGA]only	ECKD1H223ZF	0.022

■ REPLACEMENT PARTS LIST

Notes:
1. Part numbers are indicated on most mechanical parts. Please use this part number for parts order.
2. Important safety notice: Components identified by ⚠ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.
3. Ⓚ —marked parts are used for black only, while ○ —marked parts are for silver type only.
4. Part other than Ⓚ — and ○ —marked are used for both black and silver type.
5. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.
6. The " Ⓢ " mark is service standard parts and may differ from production parts.
7. The parenthesized numbers in the column of description stand for the quantity per set.

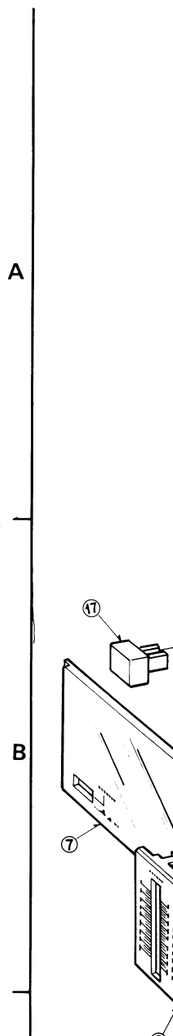
Areas	
[E] ·····	Switzerland and Scandinavia
[EGA] ···	F.R. Germany
[EK] ····	United Kingdom
[EF] ····	France
[EH] ····	Holland
[EB] ····	Belgium
[Ei] ·····	Italy
[XL] ····	Australia
[XA] ····	Asia, Latin America, Africa, Middle Near East and Oceania

Ref. No.	Part No.	Part Name & Description
INTEGRATED CIRCUITS		
IC1 [EGA]	SVINJM2043SE	Integrated Circuit
IC1 [other]	SVINJ4559DDM	Integrated Circuit
IC201	AN6552F	Integrated Circuit
IC401	STK4152−2M	Integrated Circuit
IC601	AN7072N	Integrated Circuit
TRANSISTORS		
Q601,602	2SA992E	Transistor
Q801	2SA684−RNC	Transistor
DIODES		
D401	MA4091−M	Diode
D601	MA165	Diode
D701,702	MA2150B	Diode
D801 ⚠	SVDSR1K2	Diode
D802	MA4150M	Diode
D803,804,805	LN240CP	LED
D806	LN440CP	LED
D901∼904 ⚠	SVDS2V20	Diode
COILS		
L401,402	SLQY07G−30	Coil, Choke
L501,502 (EGA)only	SLQY07G−30	Coil, Choke
L901 [EGA]only	SLQZ650MH49	Coil, Choke
TRANSFORMERS		
T901 [EK,XL] ⚠	SLT5M404−W	Power Transformer
T901 [XA] ⚠	SLT5M405−W	Power Transformer
T901 [other] ⚠	SLT5M403−W	Power Transformer
VARIABLE RESISTORS		
VR201	EWAQA8X05B54	Variable Resistor, 50k (B)
VR202	EWAPF7X15G15	Variable Resistor, 100k (G)
VR301,302	EWAPA9X15C15	Variable Resistor, 100k (C)
LAMP		
PL801 ⚠	XAMS6Q8C	Lamp
FUSES		
F1 ⚠	XBA2C06TRO	Fuse, 250V, T630 mA
F2 (XA)only ⚠	XBA2C12TRO	Fuse, 250V, T1.2A
SWITCHES		
S1	SSH3074	Switch, Selector
S2	SSH1166	Switch, Tape
S3	SSH1145	Switch, loudness
S4	SSH1172	Switch, Speaker
S5	SSS154	Switch, Impedance
S6 ⚠	SSH1071	Switch, Power
S8 (XA)only ⚠	ESE37219	Switch, Voltage Selector
CABINET and CHASSIS PARTS		
1 ○	SGW8250SA	Front panel (1)
1 Ⓚ	SGW8250BA	Front panel (1)

Ref. No.	Part No.	Part Name & Description
CABINET and CHASSIS PARTS		
2 ○	SGXUZ600−SE1	Slider Ass'y, Volume (1)
2 Ⓚ	SGXUZ600−KM1	Slider Ass'y, Volume (1)
3	SGXUZ200−SE2	Grille Ass'y, Indication (1)
4	SGU420	Transparent Plate, Indication (1)
5	SHR5276	Spacer, Tone (1)
6	SXB2	Knob, Tone (3)
7 ○	SGU418	Transparent Plate (1)
7 Ⓚ	SGU418−1	Transparent Plate (1)
8 ○	SGX7693	Sub Panel, Tone (1)
8 Ⓚ	SGX7693−1	Sub Panel, Tone (1)
9	SKUUZ200−SE	Bottom Board Ass'y (W/Feet) (1)
9−1	SKL293	Foot (4)
10 (EGA)	SGP6251B	Rear Panel (1)
10 (EK)	SGP6251C	Rear Panel (1)
10 (XA)	SGP6251−1A	Rear Panel (1)
10 (XL)	SGP6251−2A	Rear Panel (1)
10 (E)	SGP6251A	Rear Panel (1)
10 (other)	SGPUZ200−SE	Rear Panel Ass'y (1)
11 Except [XL]	SJS9231B	Inlet (1)
12 Except [XL]	SJS9231A	Cover (1)
13 (XL,XA)only	SMN1923	Plate (1)
14	SBC571−4T	Button, Loudness (1)
15	SBC315−4T	Button, Speaker (1)
16 (EK) ⚠	SFDAC05G02	AC Cord (1)
16 (XA) ⚠	SJA168	AC Cord (1)
16 (XL) ⚠	SJAG23	AC Cord (1)
16 (other) ⚠	SJA171	AC Cord (1)
17	SBC666	Knob, Power (1)
18	SBC662C	Button, Phono (1)
19	SBC662F	Button, Tuner (1)
20	SBC662G	Button, AUX (1)
21	SBC662H	Button, Tape (1)
22	SUB199	Connection Rod, Selector (4)
23	SJJ63B	Jack, Headphone (1)
24	SJF4433	Terminal Board, Speaker (1)

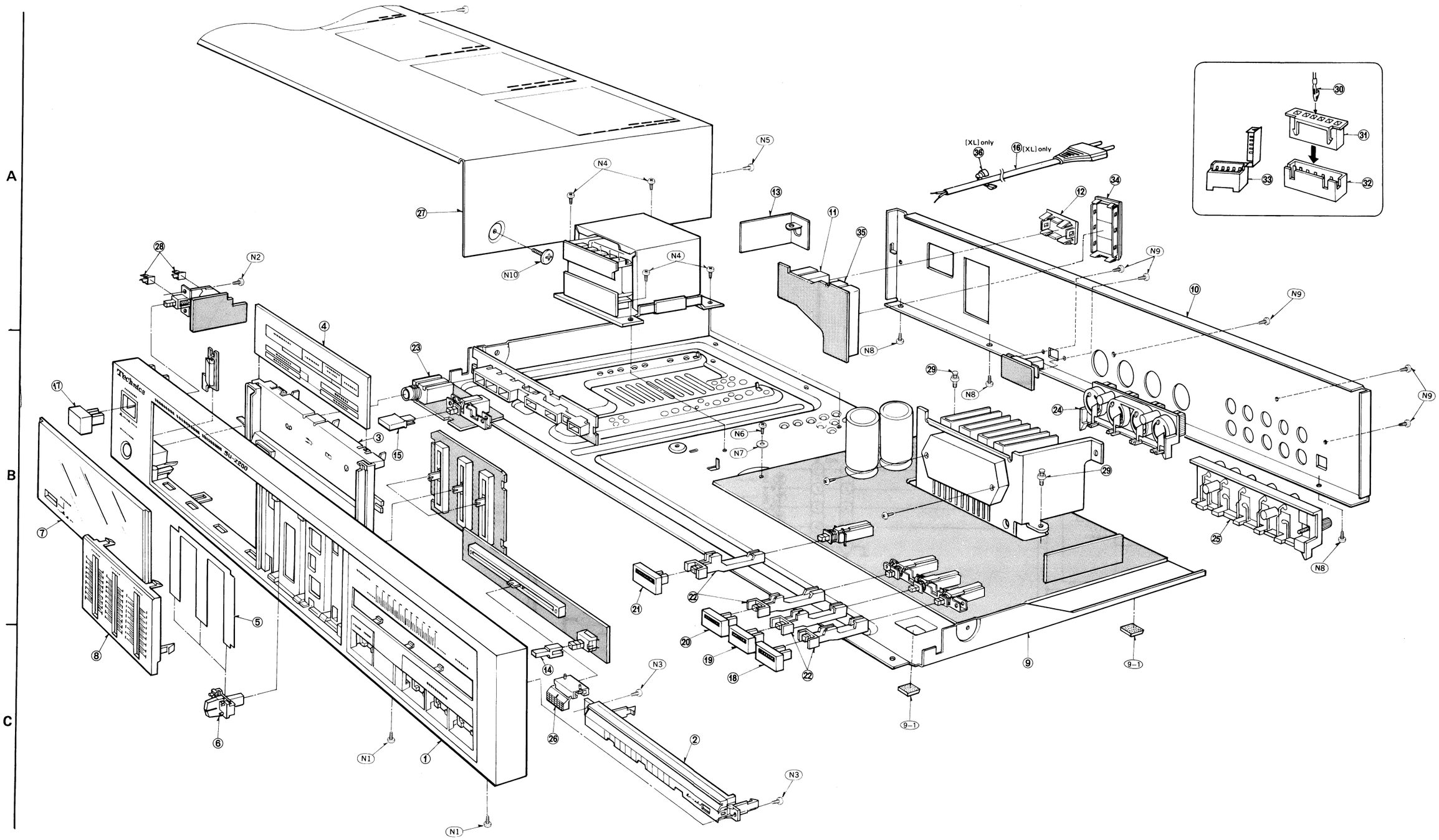
Ref. No.	Part No.	Part Name & Description
25	SJF3059−1N	Terminal Board, IN/OUT (1)
26	SBDUZ600−KM	Knob Ass'y, Volume (1)
27 ○	SKC1550S2	Cabinet (1)
27 Ⓚ	SKC1550BB2	Cabinet (1)
28	SJT347	Holder, Fuse (2)
29	SHR401−1	Crip, Heat Sinker (2)
30	SJT783	Terminal (4)
31	SJS5425	Socket, 4P (1)
32	SJT3415	Post, 4P (1)
33	SJS5519	Socket, 5P (2)
33	SJS5709	Socket, 7P (1)
34 (XA)only	SJS9328A	Cover (1)
35 (XA)only	SJS9328B	Inlet (1)
36 [XL]only	SHR127	Bushing AC Cord (1)
SCREWS and WASHERS		
N1 Ⓢ	XTB3+8BFZ	Tapping, ⊕3×8 (3)
N2 Ⓢ	XTB3+8BFZ	Tapping, ⊕3×8 (1)
N3 Ⓢ	XTB3+8BFN	Tapping, ⊕3×8 (2)
N4 Ⓢ	XTB3+8BFN	Tapping, ⊕3×8 (4)
N5 Ⓢ	XTB3+8BFZ	Tapping, ⊕3×8 (3)
N6 Ⓢ	XTV3+8BFN	Tapping, ⊕3×8 (1)
N7 Ⓢ	XWG3	Washer, φ3 (1)
N8 Ⓢ	XTB3+8BFN	Tapping, ⊕3×8 (4)
N9 Ⓢ	XTB3+8BFZ	Tapping, ⊕3×8 (5)
N10 ○	SNE2095−4	Cabinet (2)
N10 Ⓚ	SNE2095−5	Cabinet (2)
ACCESSORIES		
A1 (EK)	SQF12151	Instruction Book (1)
A1 (EF)	SQF12152	Instruction Book (1)
A1 (Ei)	SQF12153	Instruction Book (1)
A1 (XA)	SQF12154	Instruction Book (1)
A1 (EGA)	SQF12156	Instruction Book (1)
A1 (other)	SQF12150	Instruction Book (1)
A2 (XA)only ⚠	SJP9215	Plug, AC (1)
PACKING PARTS		
P1 (EK) ○	SPG4955	Carton Box (1)
P1 (other) ○	SPG4954	Carton Box (1)
P1 (EK) Ⓚ	SPG4958	Carton Box (1)
P1 (other) Ⓚ	SPG4957	Carton Box (1)
P1 (EF)	SPG4956	Carton Box (1)
P2	SPS4089−1	Pad, left (1)
P3	SPS4091−1	Pad, Right (1)
P4	SPS4488	Pad, Upper (1)
P5	SPP699	Polyethylene Bag (1)

■ EXPLOD



A	
B	⑦ ⑰
C	⑧

■ EXPLODED VIEWS



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ORDER NO. HAD84062820C8-A

Stereo Integrated Amplifier

SU-Z200

- This booklet includes the specifications of Model SU-Z200 (Order No. HAD84062820C8) written in German, French and Spanish.
- File this booklet together with the service manual of Model SU-Z200.

- Dieses Büchlein umfaßt die technischen Daten von Modell SU-Z200 (Bestell-Nr. HAD84062820C8) in den Sprachen Deutsch, Französisch und Spanisch.
- Bewahren Sie dieses Büchlein zusammen mit dem Service-Handbuch von Modell SU-Z200 suf.

- Cette brochure comprend les spécifications du Modèle SU-Z200 (N° d'Ordre HAD84062820C8) écrites en français, en allemand et en espagnol.
- Classer cette brochure en même temps qu'avec le manuel de service du Modèle SU-Z200.

- Este librito incluye las especificaciones de Modelo SU-Z200 (Pedido Nº HAD84062820C8) escritas en alemán, francés y español.
- Guardar este librito juntamente con el manual de servicio de Modelo SU-Z200.

DEUTSCH

■ TECHNISCHE DATEN (Die technischen Daten können infolge von Verbesserungen ohne Ankündigung geändert werden.)

(DIN 45 500)

■ VERSTÄRKERTEIL

Dauerton-Ausgangsleistung bei 1 kHz	
beide Kanäle ausgesteuert	2 × 35W (8 Ω)
Dauerton-Ausgangsleistung bei 40 Hz ~ 20 kHz	
beide Kanäle ausgesteuert	2 × 30W (8 Ω)
Gesamtklirrfaktor	
rated power at 40 Hz~20 kHz	0,05% (8Ω)
halbe Nennleistung bei 1 kHz	0,01% (8 Ω)
halbe Nennleistung bei 40 Hz ~ 20 kHz	0,03% (8 Ω)
−26 dB Leistung bei 1 kHz	0,02% (8 Ω)
50 mW Leistung bei 1 kHz	0,02% (8 Ω)
Intermodulationsfaktor	
Nennleistung bei 250 Hz: 8 kHz = 4:1, 8 Ω	0,05%
Nennleistung bei 60 Hz: 7 kHz = 4:1, nach SMPTE, 8 Ω	0,05%
Leistungsbandbreite	
beide Kanäle ausgesteuert bei −3 dB	10 Hz~25 kHz (8Ω, 0,05%)
Restbrumm und Geräusch	0,8 mV
Dämpfungsfaktor	40 (8 Ω)
Eingangsempfindlichkeit und -impedanz	
Phono	2,5 mV/47 kΩ
Tuner, CD/Video/Aux, Tape/EXT	150 mV/22 kΩ
Maximale TA-Eingangsspannung (1 kHz, eff.)	150 mV
Geräuschabstand	
Nennleistung (8 Ω)	
Phono	72 dB (nach IHF, A: 72 dB)
Tuner, CD/Video/Aux, Tape/EXT	86 dB (nach IHF, A: 95 dB)
−26 dB Leistung (8 Ω)	
Phono	62 dB
Tuner, CD/Video/Aux, Tape/EXT	63 dB
50 mW Leistung (8 Ω)	
Phono	61 dB
Tuner, CD/Video/Aux, Tape/EXT	61 dB
Frequenzgang	
Phono	RIAA-Standardkurve ±0,8 dB (30 Hz ~ 15 kHz)
Tuner, CD/Video/Aux, Tape/EXT	10 Hz ~ 70 kHz(−3 dB)
Klangregler	
Baßregler (BASS)	50 Hz, +10 dB ~ −10 dB
Höhenregler (TREBLE)	20 kHz, +10 dB ~ −10 dB
Gehörrichtige Lautstärkekorrektur (Loudness)	
(bei −30 dB Ausgangsleistung)	50 Hz, +9 dB
Ausgangsspannung und -impedanz	
Aufnahmeausgang (REC OUT)	150 mV
Kanalabweichung (CD/Video/Aux, 250 Hz ~ 6300 Hz)	±1 dB
Übersprechdämpfung (CD/Video/Aux, 1 kHz)	55 dB
Kopfhörerpegel und -impedanz	390 mV/330 Ω
Lautsprecherimpedanz	4 Ω ~ 16 Ω

■ ALLGEMEINE DATEN

Leistungsaufnahme	165 W
Netzspannung	
Für Kontinentaleuropa	Wechselstrom 50 Hz/60 Hz, 220V
Für andere Länder	Wechselstrom 50 Hz/60 Hz, 110V/120V/220V/240V
Abmessungen (B×H×T)	430 × 86 × 240 mm
Gewicht	4,4 kg

Bemerkung:
Der Gesamtklirrfaktor wurde mit einem digitalen Rauschspektrometer (Anlage H.P. 3045) gemessen.

FRANÇAIS

■ CARACTERISTIQUES (Sujet á changement sans prearis.)

(DIN 45 500)

■ SECTION AMPLIFICATEUR

Puissance de sortie continue à 1 kHz	
les deux canaux en circuit	2 × 35W (8Ω)
Puissance de sortie continue de 40 Hz~20 kHz,	
les deux canaux en circuit	2 × 30W (8Ω)
Distorsion harmonique totale	
rated power at 40 Hz~20 kHz	0,05% (8Ω)
à demi-puissance (1 kHz)	0,01% (8Ω)
à demi-puissance (40 Hz~20 kHz)	0,03% (8Ω)
puissance de −26 dB à 1 kHz	0,02% (8Ω)
puissance de 50 mW à 1 kHz	0,02% (8Ω)
Distorsion d'intermodulation	
à puissance nominale à 250 Hz: 8 kHz=4:1, 8Ω	0,05%
à puissance nominale à 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0,05%
Réponse de fréquences	
les deux canaux en circuit, −3 dB	10 Hz~25 kHz (8Ω, 0,05%)
Bruit et ronflement résiduels	0,8 mV
Coefficient d'amortissement	40 (8Ω)
Réponse de fréquence	
PHONO	Courbe nominale RIAA ±0,8 dB (30 Hz~15 kHz)
SYNTONISATEUR, CD/VIDEO/AUX, BANDE (TUNER, CD/VIDEO/AUX, TAPE/EXT)	10 Hz~70 kHz (−3 dB)
Réglage de la tonalité	
BASSES (BASS)	50 Hz, +10 dB~ −10 dB
AIGUS (TREBLE)	20 kHz, +10 dB~ −10 dB
Sensibilité et impédance d'entrée	
PHONO	2,5 mV/47kΩ
SYNTONISATEUR, CD/VIDEO/AUX, BANDE (TUNER, CD/VIDEO/AUX, TAPE/EXT)	150 mV/22kΩ
PHONO (tension d'entrée maximum, 1 kHz RMS)	150 mV
Signal/Bruit	
à puissance nominale (8Ω)	
PHONO	72 dB (IHF, A: 72 dB)
SYNTONISATEUR, CD/VIDEO/AUX, BANDE (TUNER, CD/VIDEO/AUX, TAPE/EXT)	86 dB (IHF, A: 95 dB)
puissance de −26 dB (8Ω)	
PHONO	62 dB
SYNTONISATEUR, CD/VIDEO/AUX, BANDE (TUNER, CD/VIDEO/AUX, TAPE/EXT)	63 dB
puissance de 50 mW (8Ω)	
PHONO	61 dB
SYNTONISATEUR, CD/VIDEO/AUX, BANDE (TUNER, CD/VIDEO/AUX, TAPE/EXT)	61 dB
Compensateur physiologique (volume à −30 dB)	50 Hz, +9 dB
Tension de sortie et impédance	
SORTIE ENREGISTREMENT (REC OUT)	150 mV
Equilibrage des canaux, CD/VIDEO/AUX 250 Hz~6 300 Hz	±1 dB
Séparation des canaux, CD/VIDEO/AUX 1 kHz	55 dB
Niveau de sortie des casques et impédance	390 mV/330Ω
Impédance de charge	4Ω~16Ω

■ DIVERS

Consommation	165W
Alimentation	
Pour l'Europe	CA 50 Hz/60 Hz, 220V
Autres	CA 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensions (L×H×Pr)	430 × 86 × 240 mm
Poids	4,4 kg

Remarque:

1. On mesure la distorsion harmonique totale au moyen d'un analyseur de spectre digital (Système H.P. 3045).
2. La Société NATIONAL-PANASONIC-FRANCE, importateur du matériel MATSUSHITA-ELECTRIC déclare que cet appareil est conforme aux prescriptions de la directive 76/889/C.E.E. (arrêté 14 Janvier 1980)

ESPAÑOL

■ ESPECIFICACIONES (Estas especificaciones están sujetas a cualquier cambio sin previo eviso.)

(DIN 45 500)

■ SECCION AMPLIFICADOR

Potencia continua de 1 kHz	
en ambos canales	2 × 35W (8Ω)
Potencia continua de 40 Hz~20 kHz	
en ambos canales	2 × 30W (8Ω)
Distorsión armónica total	
rated power at 40 Hz~20 kHz	0,05% (8Ω)
mitad de potencia a 1 kHz	0,01% (8Ω)
mitad de potencia a 40 Hz~20 kHz	0,03% (8Ω)
−26 dB de potencia a 1 kHz	0,02% (8Ω)
50 mW de potencia a 1 kHz	0,02% (8Ω)
Distorsión por intermodulación	
potencia de régimen a 250 Hz: 8 kHz=4:1, 8Ω	0,05%
potencia de régimen a 60 Hz: 7 kHz=4:1, SMPTE, 8Ω	0,05%
Ancho de banda de potencia	
con ambos canales, −3 dB	10 Hz~25 kHz (8Ω, 0,05%)
Zumbido residual y ruido	0,8 mV
Factor de amortiguamiento	40 (8Ω)
Sensibilidad e impedancia de entrada	
TOCADISC. (PHONO)	2,5 mV/47kΩ
SINTON., CD/VIDEO/AUX, GRAB. (TUNER, CD/VIDEO/AUX, TAPE/EXT)	150 mV/22kΩ
Voltaje máximo de entrada de PHONO (1 kHz, RMS)	150 mV
Respuesta de frecuencia	
TOCADISC. (PHONO)	curva RIAA estándar ±0,8 dB (30 Hz~15 kHz)
SINTON., CD/VIDEO/AUX, GRAB. (TUNER, CD/VIDEO/AUX, TAPE/EXT)	10 Hz~70 kHz (− 3 dB)
Controles de tono	
BAJOS (BASS)	50 Hz, +10 dB~ −10 dB
AGUDOS (TREBLE)	20 kHz, +10 dB~ −10 dB
Relación de señal a ruido	
potencia de régimen (8Ω)	
TOCADISC. (PHONO)	72 dB (IHF, A: 72 dB)
SINTON., CD/VIDEO/AUX, GRAB. (TUNER, CD/VIDEO/AUX, TAPE/EXT)	86 dB (IHF, A: 95 dB)
−26 dB de potencia (8Ω)	
TOCADISC. (PHONO)	62 dB
SINTON., CD/VIDEO/AUX, GRAB. (TUNER, CD/VIDEO/AUX, TAPE/EXT)	63 dB
50 mW de potencia (8Ω)	
TOCADISC. (PHONO)	61 dB
SINTON., CD/VIDEO/AUX, GRAB. (TUNER, CD/VIDEO/AUX, TAPE/EXT)	61 dB
Control de sonoridad (volumen a −30 dB)	50 Hz, +9 dB
Voltaje e impedancia de salida	
SAL. GRAB. (REC OUT)	150 mV
Equilibrio de canales, CD/VIDEO/AUX 250 Hz~6 300 Hz	±1 dB
Separación de canales, CD/VIDEO/AUX 1 kHz	55 dB
Impedancia y nivel de salida de los auriculares	390 mV/330Ω
Impedancia de carga	4Ω~16Ω

■ GENERAL

Consumo de energía	165W
Alimentación de energía	
Para Europa continental	CA 50 Hz/60 Hz, 220V
Para otros paises	CA 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensiones (An.×Al.×Prof.)	430 × 86 × 240 mm
Peso	4,4 kg

Nota:

La distorsión armónica total se mide con el analizador de espectro digital (sistema H.P. 3045).

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